

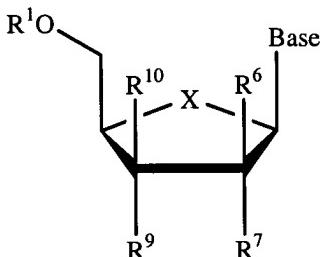
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-88 (canceled)

Claims 89 (currently amended): A method for the treatment of a hepatitis C virus infection in a host, comprising administering an anti-virally effective amount of a β-D nucleoside compound of Formula XVII formula:



(XVII)

or a pharmaceutically acceptable salt or ester thereof, wherein:

Base is a triazolopyridine, imidazolopyridine, or pyrazolopyrimidine;

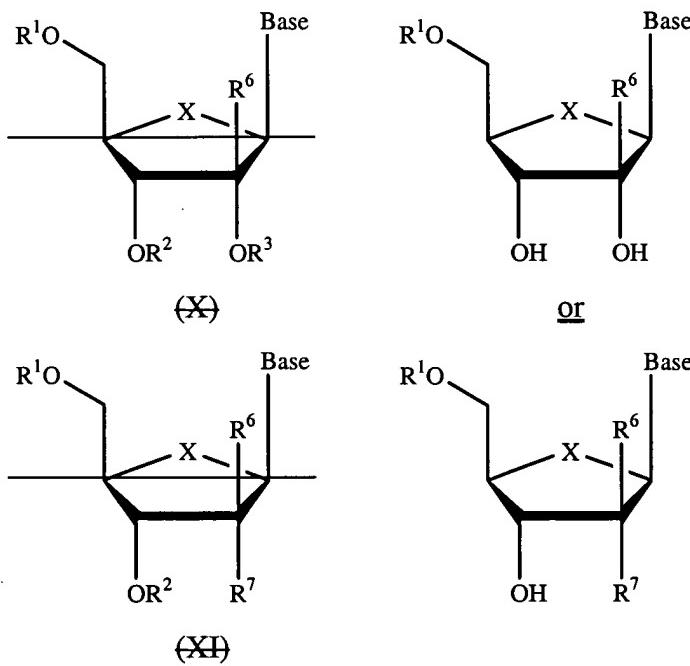
R¹ and R² are independently H; phosphate; stabilized phosphate prodrug; acyl; alkyl; sulfonate ester; benzyl, wherein the phenyl group is optionally substituted with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, and phosphonate; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or ~~ether~~ a pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing provides a compound wherein R¹ and R² are independently H or phosphate;

R⁶ is hydroxy, alkyl, lower alkyl, azido, cyano, alkenyl, alkynyl, ~~Br~~ vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, or -N(acyl)₂;

R^7 and R^9 are independently hydrogen, OR^1OR^2 , hydroxy, alkyl, lower alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, $-\text{C}(\text{O})\text{O}(\text{alkyl})$, $-\text{C}(\text{O})\text{O}(\text{lower alkyl})$, $-\text{O}(\text{acyl})$, $-\text{O}(\text{lower acyl})$, $-\text{O}(\text{alkyl})$, $-\text{O}(\text{lower alkyl})$, $-\text{O}(\text{alkenyl})$, chlorine, bromine, iodine, NO_2 , NH_2 , $-\text{NH}(\text{lower alkyl})$, $-\text{NH}(\text{acyl})$, $-\text{N}(\text{lower alkyl})_2$, or $-\text{N}(\text{acyl})_2$;
 R^{10} is H, alkyl, lower alkyl, chlorine, bromine or iodine;
~~alternatively, R^7 and R^9 , or R^7 and R^{10} can come together to form a bond;~~ and
X is O, S, SO_2 or CH_2 .

Claims 90-129 (canceled)

Claim 130 (currently amended): The method of claim 89 for the treatment of a hepatitis C virus infection in a host, comprising administering an anti-virally effective amount of a compound of Formula X or XI formula:



or a pharmaceutically acceptable salt or ester thereof, wherein:
Base is a triazolopyridine, imidazolopyridine, or pyrazolopyrimidine;
 R^1 , R^2 and R^3 are independently H; phosphate; or a stabilized phosphate prodrug; acyl; alkyl; sulfonate ester; or benzyl, wherein the phenyl group is optionally substituted

with one or more substituents selected from the group consisting of hydroxyl, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, and phosphonate; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other a pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing provides a compound wherein R¹, R² and R³ are independently H or phosphate;

R⁶ is hydroxy, alkyl, lower alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, or -N(acyl)₂;

R⁷ is hydrogen, OR³, OR¹, hydroxy, alkyl, lower alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, or -N(acyl)₂; and

X is O, S, SO₂ or CH₂.

Claim 131 (currently amended): The method of claim 89 for the treatment of a hepatitis C virus infection in a host, wherein, in the compound of Formula XVII:

R¹⁰ is H, alkyl, chlorine, bromine or iodine;

R⁷ and R⁹ are independently hydrogen, OR², alkyl, alkenyl, alkynyl, Br-vinyl, O-alkenyl, chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, or -N(acyl)₂;

R⁶ is alkyl, lower alkyl, chlorine, bromine or iodine;

~~alternatively, R⁷ and R⁹, or R⁸ and R⁹ can come together to form a bond;~~ and

X is O, S, SO₂ or CH₂.

Claim 132 (previously presented): The method of claim 89 wherein R¹ is hydrogen or phosphate.

Claim 133 (currently amended): The method of claim 89 wherein R² R¹ is hydrogen, acyl or alkyl.

Claim 134 (currently amended): The method of claim 89 wherein R⁶ is alkyl or lower alkyl.

Claim 135 (currently amended): The method of claim 89 wherein R⁷ and R⁹ are independently hydrogen, OR² or hydroxy.

Claim 136 (previously presented): The method of claim 89 wherein R⁷ is hydroxy.

Claim 137 (previously presented): The method of claim 89 wherein R⁹ is hydroxy.

Claim 138 (previously presented): The method of claim 89 wherein R⁷ and R⁹ are hydroxy.

Claim 139 (previously presented): The method of claim 89 wherein R¹⁰ is hydrogen.

Claim 140 (previously presented): The method of claim 89 wherein X is O.

Claim 141 (currently amended): The method of claim 89 wherein

R¹ is hydrogen, alkyl, acyl, or phosphate;

R² is hydrogen, acyl or alkyl;

R⁶ is alkyl or lower alkyl;

R⁷ and R⁹ are independently hydrogen, OR², OR¹ or hydroxy;

R¹⁰ is hydrogen; and

X is O.

Claim 142 (previously presented): The method of claim 89, wherein the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.

Claim 143 (previously presented): The method of claim 142, wherein the second anti-hepatitis C virus agent is selected from the group consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.

Claim 144 (previously presented): The method of claim 143, wherein the second anti-hepatitis C virus agent is interferon.

Claim 145 (previously presented): The method of claim 143, wherein the second anti-hepatitis C virus agent is a protease inhibitor.

Claim 146 (previously presented): The method of claim 143, wherein the second anti-hepatitis C virus agent is ribavirin.

Claim 147 (previously presented): The method of claim 89, wherein the compound is in the form of a dosage unit.

Claim 148 (previously presented): The method of claim 147, wherein the dosage unit contains 50 to 1000 mg of said compound.

Claim 149 (previously presented): The method of claim 147, wherein said dosage unit is a tablet or capsule.

Claim 150 (previously presented): The method of claim 89, wherein the host is a human.

Claim 151 (previously presented): The method of claim 89, wherein the compound nucleoside is in substantially pure form.

Claim 152 (previously presented): The method of claim 89, wherein compound is at least 90% by weight of the β -D-isomer.

Claim 153 (previously presented): The method of claim 89, wherein the compound is at least 95% by weight of the β -D-isomer.

Claim 154 (new): The method of claim 89, wherein the compound is at least 85% by weight of the β -D-isomer.

Claim 155 (new): The method of claim 89, wherein R^6 is methyl.

Claim 156 (new): The method of claim 141, wherein R^6 is methyl.

Claim 157 (new): The method of claim 89, wherein R^6 is methyl, and R^7 and R^9 are hydroxy.

Claim 158 (new): The method of claim 89, wherein R⁶ is methyl, R⁷ and R⁹ are hydroxy; and R¹⁰ is hydrogen.

Claim 159 (new): The method of claim 89, wherein X is O; R⁶ is methyl; R⁷ and R⁹ are hydroxy; and R¹⁰ is hydrogen.

Claim 160 (new): The method of claim 159, wherein R¹ is H.

Claim 161 (new): The method of claim 159, wherein R¹ is an acyl.

Claim 162 (new): The method of claim 159, wherein R¹ is a phosphate.

Claim 163 (new): The method of claim 159, wherein R¹ is an amino acid.

Claim 164 (new): The method of claim 89, wherein the base is triazolopyridine.

Claim 165 (new): The method of claim 89, wherein the base is imidazolopyridine.

Claim 166 (new): The method of claim 89, wherein the base is pyrazolopyrimidine.

Claim 167 (new): The method of any one of claims 159-163, wherein the base is triazolopyridine.

Claim 168 (new): The method of any one of claims 159-163, wherein the base is imidazolopyridine.

Claim 169 (new): The method of any one of claims 159-163, wherein the base is pyrazolopyrimidine.

Claim 170 (new): The method any one of claims 167-169, wherein the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.

Claim 171 (new): The method of claim 170, wherein the second anti-hepatitis C virus agent is selected from the group consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.

Claim 172 (new): The method of claim 170, wherein the second anti-hepatitis C virus agent is interferon.

Claim 173 (new): The method of claim 170, wherein the second anti-hepatitis C virus agent is a protease inhibitor.

Claim 174 (new): The method of claim 170, wherein the second anti-hepatitis C virus agent is ribavirin.

Claim 175 (new): The method of any one of claims 167-174, wherein the host is a human.

Claim 176 (new): The method of any one of claims 167-174, wherein the host is a cell.

Claim 177 (new): The method of claim 89, wherein the pharmaceutically acceptable carrier is suitable for oral delivery.

Claim 178 (new): The method of claim 89, wherein the pharmaceutically acceptable carrier is suitable for intravenous delivery.

Claim 179 (new): The method of claim 89, wherein the pharmaceutically acceptable carrier is suitable for parenteral delivery.

Claim 180 (new): The method of claim 89, wherein the pharmaceutically acceptable carrier is suitable for intradermal delivery.

Claim 181 (new): The method of claim 89, wherein the pharmaceutically acceptable carrier is suitable for subcutaneous delivery.

Claim 182 (new): The method of claim 89, wherein the pharmaceutically acceptable carrier is suitable for topical delivery.

Claim 183 (new): A method for the treatment of a hepatitis C virus infection in a host, comprising administering an antivirally effective amount of a β -D-2'-C-branched triazolopyridine nucleoside.

Claim 184 (new): The method of claim 183, wherein the β -D-2'-C-branched triazolopyridine nucleoside is a β -D-2'-C-methyl-branched triazolopyridine nucleoside.

Claim 185 (new): The method of claim 183, wherein the β -D-2'-C-branched triazolopyridine nucleoside is a β -D-2'-C-branched triazolopyridine ribonucleoside.

Claim 186 (new): The method of claim 185, wherein the β -D-2'-C-branched triazolopyridine ribonucleoside is a β -D-2'-C-methyl-branched triazolopyridine ribonucleoside.

Claim 187 (new): A method for the treatment of a hepatitis C virus infection in a host, comprising administering an antivirally effective amount of a β -D-2'-C-branched imidazolopyridine nucleoside.

Claim 188 (new): The method of claim 187 wherein the β -D-2'-C-branched imidazolopyridine nucleoside is a β -D-2'-C-methyl-branched imidazolopyridine nucleoside.

Claim 189 (new): The method of claim 187 wherein the β -D-2'-C-branched imidazolopyridine nucleoside is a β -D-2'-C-branched imidazolopyridine ribonucleoside.

Claim 190 (new): The method of claim 189 wherein the β -D-2'-C-branched imidazolopyridine ribonucleoside is a β -D-2'-C-methyl-branched imidazolopyridine ribonucleoside.

Claim 191 (new): A method for the treatment of a hepatitis C virus infection in a host, comprising administering an antivirally effective amount of a β -D-2'-C-branched pyrazolopyrimidine nucleoside.

Claim 192 (new): The method of claim 191, wherein the β -D-2'-C-branched pyrazolopyrimidine nucleoside is a β -D-2'-C-methyl-branched pyrazolopyrimidine nucleoside.

Claim 193 (new): The method of claim 191, wherein the β -D-2'-C-branched pyrazolopyrimidine nucleoside is a β -D-2'-C-branched pyrazolopyrimidine ribonucleoside.

Claim 194 (new): The method of claim 193, wherein the β -D-2'-C-branched pyrazolopyrimidine ribonucleoside is a β -D-2'-C-methyl-branched pyrazolopyrimidine ribonucleoside.

Claim 195 (new): The method of any one of claims 183-194, wherein the host is a human.

Claim 196 (new): The method of any one of claims 183-194, wherein the host is a cell.

Claim 197 (new): The method of claim 89, wherein the host is a cell.